United States Department of Agriculture

Soil Conservation Service

210 Walnut Street
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Des Moines, IA 50309

May 12, 1992

BIOLOGY TECHNICAL NOTE NO. 19
190-VI-Notice IA1

SUBJECT: ECS - BIOLOGY - CREATION OF WATERFOWL NESTING ISLANDS

Purpose: To transmit a Biology Technical Note.

Effective Date. When recieved.

This Biology Technical Note is intended to provide guidance in minimum design standards for all waterfowl nesting islands installed with SCS technical assistance in created or restored wetlands, flood control structures, and farm ponds. It will also be the standard for any joint cost share agreements between the Iowa Department of Natural Resources and the SCS.

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Attachment

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TECHNICAL NOTES

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
IOWA STATE OFFICE
DES MOINES, IOWA

ADMINISTRATIVE MATERIAL - FOR USE ONLY WITHIN THE SOIL CONSERVATION SERVICE

BIOLOGY #19

Date: May 12, 1992

SUBJECT: CREATION OF WATERFOWL NESTING ISLANDS

Waterfowl production can be enhanced with secure nesting cover that provides a barrier to access by predators. This can be accomplished by providing artificial nesting structures above the ground surface or placing a barrier around ground nesting sites. The construction of islands within wetland areas or constructed pools can provide a water barrier to some predators. This information provides guidelines for the construction of these islands.

Planning Considerations

1. Due to variations in site conditions such as soils, topography, etc., it may be necessary to modify these guidelines for specific reasons. This should require consultation with SCS or DNR biologists.

Location

1. Where possible, islands should be created by directing borrow activity to cut a point off from the mainland.

2. Islands may also be constructed by directing placement of borrow, or by making a "push-up" island.

3. Where possible, islands should be located on the west side of the pool or in a sheltered bay for protection from the prevailing westerly winds.

4. If the island is exposed to wind fetch the smallest side of the island should be oriented toward the prevailing wind.

5. Islands should be at least 30 feet from shore and surrounded by water at least 2 feet deep. Preferably the island should be 50 to 150 feet from shore and surrounded by water at least 3 feet deep.

Size

1. Minimum size should be a settled top of 10x30 feet, with at least a 0.1 acre preferred.

2. Ideal size for Canada geese is 0.5 to 1.0 acre.

3. No island should be larger than 2 acres.

Shape

1. A rectangular shape is preferred for constructed islands.

2. Side slopes should be a minimum of 3:1.

3. The minimum side slope for pools larger than 2 acres or where the wind fetch is greater than 200 yards (1/8 mile) should be 5:1.

Height

1. The settled top of the island should be one (1) foot above the emergency spillway elevation, if the stage is five (5) feet or less.

2. If the stage is greater than five (5) feet, the elevation of the settled top of the island should be set at one (1) foot above the Q5 storm peak. Use of pipe-barrel or tire nests on these islands will allow goose nesting in years when the island is inundated.

Density

1. An island-to-water area ratio of 1:50 is recommended for larger pools, i.e. 0.1 acre island for a five (5) acre pool.

2. For small pools use one 10x30 foot island per water acre.

Seeding

1. Seed may be broadcast by hand or any other means that provides adequate cover for nesting and erosion protection.

2. As a minimum, seed islands to the same mixture as the structure. Native warm season or adapted grasses may be used.

A. Other recommended seeding mixtures of PLS per acre

1) Reed Canarygrass - 5 lbs, Birdsfoot Trefoil - 5 lbs, Alsike Clover - 2 lbs.

2) Garrison Creeping Foxtail - 5 lbs, Birdsfoot Trefoil - 5 lbs, Alsike Clover - 2 lbs.

3) Switchgrass - 5 lbs, Birdsfoot Trefoil - 5 lbs, Alsike Clover - 2 lbs.

3. Preferred vegetative cover for geese is 50 percent grass and 50 percent low growing shrubs such as coralberry, snowberry, dwarf spiraea, raspberry, dwarf willow, or gooseberry.

4. In addition to the grass mixture, islands exposed to wind fetch may have the windward edge planted to dwarf shrubs such as Bankers Dwarf Willow to further protect it from wave erosion.

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